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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/720,038

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Akihiro Kohno

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CANON U.S.A. INC. INTELLECTUAL PROPERTY DIVISION
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EXAMINER

LIEW, ALEX KOK SOON

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/720,038	Applicant(s) KOHNO, AKIHIRO	
	Examiner ALEX LIEW	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5,6,9,11,12 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,5,6,9,11,12 and 15-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The amendment filed on 1/18/08 is entered and made of record.

Response to Applicant's Arguments

1. On page 8 of the reply, the applicant stated:

... in the system disclosed by the Shiiyama reference, a search condition is not set to obtain "images having same photographing conditions (pan/tilt/zoom)," but rather, the search condition is set to obtain "images having different photographing conditions (pan/tilt/zoom) but including same subject."

In the last office action, the examiner pointed out that Burns discloses image having different photographing conditions, which includes the pan, tilt and zoom of the camera (see column 14, lines 16 to 30, the image, shown in figure 5, is taken at a tilted position). Also, the claim does not call for "images having *same* photographing conditions (pan/tilt/zoom)"

2. The applicant further stated that the combination of Shiiyama teaches away from combining with another reference, such as the Burns reference. The examiner disagrees. First off, Shiiyama and Burns are combinable because both references come from the pattern recognition art. Secondly, Shiiyama did discussed images taken from plurality of angles may cause image retrieval errors (see column 1, lines 29 to 37). However, Shiiyama propose the use of image labeling to identify features of the image as a remedy to the problem; this labeling may include angle where the camera is

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positioned to capture images of the object or scene, allowing the image to be subjected to similarity comparison to be taken at plurality of angles with the potential of being identified and obtaining results to retrieve specified image (see column 1, line 52 to column 2, line 2).

3. On page 9 of the reply, the applicant stated:

... neither the Shiiyama reference nor the Burns reference teach or suggest the feature to specify a region in images to be subject for measuring similarity index so as to calculate the similarity index between these regions and a region specified in a reference image ...

The examiner does not agree. Burns discloses specifying a region in images to be subject for measuring similarity measure so as to calculate the similarity between these regions and a region specified in a reference image (see figure 5, the regions inherently specified are regions a and b).

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3, 5, 6, 9, 11, 12 and 15 to 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiyama (US pat no 6,400,853) in view of Burns (US pat no 5,828,769).

With regards to claim 6, Shiiyama discloses a method for processing images comprising the steps of:

selecting a first image data unit from the image data units as a reference for measuring a similarity index (see figure 21A, is the image selected to be a reference image),

comparing attribute information of first image data unit with attribute information of the remaining image data units other than the first image data unit (see column 11 lines 11 to 18, where the specified image data units are used as reference to measure similarity with the some or all the image data units with the registered image data units) to determine a second image data unit to be used for measuring the similarity index (see figure 21B) and

measuring the similarity index between the first image data unit and second image data unit (see figure 21C – the similarity values are calculated for the label matrixes).

Shiiyama does not disclose second image data units having information different pan, tilt and zoom angles from the first image data units. However, Shiiyama discusses images can be taken from plurality of angles and may cause image retrieval errors (see column 1, lines 29 to 37) and Shiiyama propose the use of image labeling to identify

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features of the image. This labeling may include angle where the camera is positioned to capture images of the object or scene, allowing the image to be subjected to similarity comparison to be taken at plurality of angles with the potential of being identified and obtaining results to retrieve specified image (see column 1, line 52 to column 2, line 2).

Burns discloses a second image data unit being determined by excluding, from a subject for measuring the similarity index, image data units having different attribute information from attribute information of the first image data in terms of pan angles, tilt angles and zoom angles of a camera being used during capturing the image data units (see figure 4a to 4c are model images stored in database, discussed in column 13, lines 53 to 67, and figure 5 shows image of the current image; the features in the current image and model images are compared to determine match; the pan, tilt and zoom information are found on column 14, lines 1 to 8).

One skilled in the art would include second image data units as pan, tilt and zoom information because sometimes the person being image does not look directly into the camera resulting the person in the image looking away at an angle, having addition image on a person which looks another way prevent the camera to take another image of the person, to save processing power.

With regards to claim 3, Shiiyama discloses a method for processing images according to claim 1, further comprising the steps of splitting each of the first image data unit and the second image data unit into a plurality of blocks (see figure 21A and B, 'a' to 'i' and '1' to '9' with each alphabet and numbers, respectively, representing a block) and

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measuring the similarity index between the first image data unit and the second image data unit on a block-to-block basis (see figure 21C).

With regards to claim 5, Shiiyama discloses a method for processing images according to claim 4, further comprising the steps of splitting each of the first image data unit and the second image data unit into a plurality of blocks (see figure 21A and B the regions in row are further divided into blocks) and specifying at least one block to specify the region in the first image data unit (figure 21A is the first unit data).

With regards to claims 12, 17 and 18, see the rationale and rejection for claims 1 and 5. In addition, Shiiyama discloses a CPU, figure 1, 101, which requires instructions stored in a storage medium, to perform functions disclosed in Shiiyama.

With regards to claim 9, see the rationale and rejection for claim 3.

With regards to claim 11, see the rationale and rejection for claim 5.

With regards to claim 15, Burns further discloses second data image data unit excluding image having different attribute information from attribute information of the first image data in terms of pan angles, tilt angles and zoom angles, are determined by comparing attribute information of the first image data unit with attribute information of the remaining image data units other than the first image data unit (see column 14, lines 54

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to 67, the attributes are compared with each others, each of the attributes in images shown in figures 4a, 4b and 4c are compared to the attributes in image shown in figure 5).

With regards to claim 16, see the rationale and rejection for claim 15.

Conclusion

This action is made final. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shorten statutory period for reply to this final action is set to expire three months from the mailing date of this action. In the event a first reply is filed within two months of the mailing date of this final action and the advisory action is not mailed until after the end of the three-month shorten statutory period, then the shorten statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however will the statutory period for reply expire later than six months from the mailing date of the final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX LIEW whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew C Bella/
Supervisory Patent Examiner, Art
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3/17/08